

(12) INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(19) World Intellectual Property
Organization
International Bureau



(43) International Publication Date
9 June 2005 (09.06.2005)

PCT

(10) International Publication Number
WO 2005/051193 A1

(51) International Patent Classification⁷: **A61B 5/0484**

Chowne Street, Campbell, Australian Capital Territory
2612 (AU).

(21) International Application Number:
PCT/AU2004/001656

(74) Agents: **CHRISTIE, Andrew L** et al.; Davies Collison
Cave, Level 3, 303 Coronation Drive, Milton, Queensland
4064 (AU).

(22) International Filing Date:
29 November 2004 (29.11.2004)

(81) Designated States (unless otherwise indicated, for every
kind of national protection available): AE, AG, AL, AM,
AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN,
CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI,
GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE,
KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD,
MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG,
PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM,
TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM,
ZW.

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:
2003906589 28 November 2003 (28.11.2003) AU

(71) Applicant (for all designated States except US): **THE
AUSTRALIAN NATIONAL UNIVERSITY** [AU/AU];
Acton, Australian Capital Territory 0200 (AU).

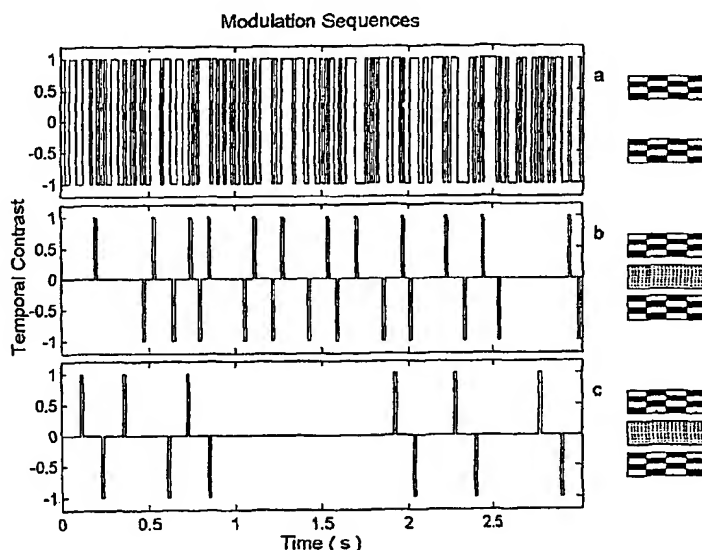
(84) Designated States (unless otherwise indicated, for every
kind of regional protection available): ARIPO (BW, GH,
GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM,
ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),
European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI,
FR, GB, GR, HU, IE, IS, IT, LU, MC, NL, PL, PT, RO, SE,

(72) Inventors; and

(75) Inventors/Applicants (for US only): **MADDESS, Ted**
[AU/AU]; 71 Florentine Court, Kaleen, Australian Capital
Territory 2617 (AU). **JAMES, Andrew** [AU/AU]; 12

[Continued on next page]

(54) Title: **ASSESSMENT OF NEURAL FUNCTION**



(57) Abstract: Assessment of one of the sensory nervous systems of a human subject using patterns of null and non-null stimuli. Parts of the visual system for example, are presented with two simultaneous sequences of stimuli. Each sequence is varied over time between a null stimulus and one or more less frequent non-null stimuli. The variation of each sequence is also controlled so that neighbouring parts of the sensory system are less likely to receive simultaneous non-null stimuli. The stimuli are therefore sparse both in time and in some other aspect, typically a spatial dimension. One or more responses of the subject are measured and weight functions are determined for assessment of the sensory system.

BEST AVAILABLE COPY



SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

Published:

— *with international search report*